MASS - the amount of particles in an object.

MASS of an object is constant.

measured in POUNDS

Metric g or (Kg)

$$\frac{1000\ g}{1\ kg}$$

Symbol for mass "m"

MASS IS NOT the same as Weight

MASS is a Scalar.

Weight is a FORCE

AND ALL FORCES DO HAVE a direction AND therefore are Vectors

Weight's direction IS ALWAYS down

FORCE IS A Push or pull ON AN Object.

CONTACT FORCES
Two things need to touch each other

NON-CONTACT FORCES
These forces do not touch each other.

MAGNETIC FORCE
GRAVITATIONAL FORCE

Gravity is NOT A FORCE

$$W = mg$$

W: weight

m: mass

g: acceleration due to gravity

$$\text{Newtons} = (kg) * m/s^2$$

$$N = \frac{kg \cdot m}{s^2}$$

3kg of AMAZing chicken

Weight of AMAZING chicken on MARS? $g_{MARS} = 3.8\ m/s^2$

$m = 3kg$

$g = 3.8\ m/s^2$

$W = ?$

$W = mg$

$W = (3kg)(3.8\ m/s^2)$

$W = 11.4N\downarrow$

What is the AMAZING chicken's Weight on earth? $g_{earth} = 9.8\ m/s^2$